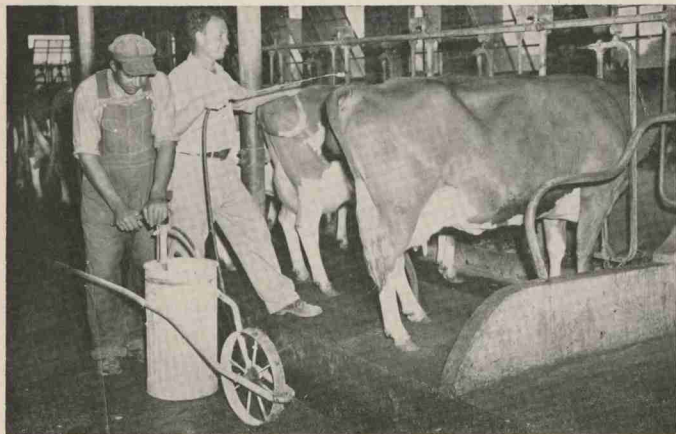


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CONTROL OF LIVESTOCK PESTS

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CONTROL OF LIVESTOCK PESTS

GEORGE D. JONES

PEST	MATERIAL	DOSAGE	REMARKS
Cattle Grubs	Rotenone	Use ready-made dust mixture containing approximately 1.65% total rotenone content. Make 3 applications at 3-4 week intervals.	Make first application as soon as grubs or "bumps" first appear underneath skin on back region. Apply dust to entire back region and work it into hair with fingers or scrub brush. Thoroughness of application is important. Rotenone may also be used as a spray, wash or as a dip when large herds are to be treated. For more details see USDA Farmers' Bulletin No. 1596.
Cattle Lice Dairy (animals giving milk)	Dust Rotenone	Same dust as above for grub control or one containing at least 1% rotenone. Begin applications in October and make 2 applications at 2 week intervals as needed.	Rub well into flanks, neck and all infested areas. Treat all animals.
	Sprays Methoxychlor, 50% wettable powder.	Spray using 1 lb. 50% wettable powder to 5 gallons water.	Apply thoroughly with small spray equipment (knapsack or foot pump) using about 1 pint per animal.
	Lindane, 25% wettable powder	A single spray using only 1 to 1½ oz. (2 to 3 level tablespoonfuls) to 5 gal. water may be used.	Repeated applications are not advisable due to harmful absorption. Follow label and company recommendations.
Beef (animals not giving milk or being finished for slaughter)	Dust Rotenone or Methoxychlor	For small herds use rotenone dust as for dairy animals or a 5% methoxychlor dust on animals giving milk or ready for market when there is danger of using DDT.	Same as above. One application in late fall usually sufficient. Two applications at a 15-day interval may be necessary to clean up heavy infestations.
	Sprays DDT, 50% wettable powder Lindane, 25% wettable powder.	Spray using 1 lb. 50% wettable powder to 5 gal. water. A single spray using only 1 to 1½ oz. (1 to 1½ tablespoonfuls) WP per 5 gal. water has proved effective but re-infestation may occur after 2 weeks.	When power equipment is used, reduce amount of DDT to ¼ lb. to 5 gal. water. Follow company recommendations carefully as this dosage may be harmful to very young animals.
	Toxaphene, 40% wettable powder (Do not use on young animals)	Use ½ lb. 40% wettable powder to 5 gal. water.	Chlordane, like toxaphene, should not be used on dairy or on young animals. Do not use Oil Sprays. Follow labels and company recommendations carefully.
	Chlordane, 50% wettable powder.	Same as for toxaphene.	Please note: None of the materials mentioned for use on Beef animals should be used within 30 days of slaughter. For more details see USDA, Farmers' Bulletin No. 909.
House Fly (Buildings)	Pyrethrum or allethrin with added synergist or thanite. Bait mixtures containing malathion, Diazinon, and L-13/59.	Close doors and windows and apply as space of "fog" spray. Certain fly "bait" mixtures have been used by spraying, as paints sprinkling on sacks on the floor and as "dry baits" to kill resistant populations.	Fly breeding areas should be located and cleaned regularly. Follow directions on labels.
	Methoxychlor, 50% wettable powder or 25% emulsion.	Use 1 lb. WP or 1 pint emulsion to each 2½ gal. water.	Mix with small amount of water before putting in sprayer. Apply to light cords, cross beams and all areas where flies are known to stay. Apply with small or power sprayer.

PEST	MATERIAL	DOSAGE	REMARKS
	DDT 50% wettable powder or emulsion concentrates. Chlordane, 50% wettable powder.	See Methoxychlor above and follow directions on container. 1 lb. to each 3 gal. water	Same as above and follow directions on container. Avoid contaminating feed and food.
	Lindane (1) 25% wettable powder or 20% emulsion	8 oz. (8 to 10 level tablespoonfuls WP) or 1½ cupfuls emul. to each 5 gal. water.	DDT and chlordane are not to be used in dairy barns but may be used in many areas where flies are not resistant. For more details see USDA, Leaflet No. 390.
Hornflies (3) (Dairy animals giving milk)	Methoxychlor, 50% wettable powder Pyrethrum or allethrin with added synergist and water to make spray	Spray using 1 lb. to 5 gal. water. Effective for short periods, from 2 to 4 days. (May be used in 3 gal. sprayer.)	Apply to legs and underneath portions as well as over back and around horns. Oil sprays if not applied properly will harm skin. Follow company directions.
Hornflies (3) (Beef and animals not giving milk)	DDT, 50% wettable powder Methoxychlor, 50% wettable powder. TDE, 50% wettable powder. Toxaphene, 40% wettable powder	Spray using 1 lb. to 5 gal. water and thoroughly wet animals. As above. Same as for DDT. Use ½ lb. to 5 gal. water.	Same as above on dairy animals. Power spray equipment will speed up control work. When power equipment is used reduce DDT to ½ lb. to 5 gal. water. Follow company recommendations. Follow company recommendations. For more details see USDA, Leaflet No. 388.
Deer, horse and stable flies	(3) Pyrethrum with added synergist.	Same as above for hornflies on dairy animals.	(3) May give temporary protection for short periods. Stable flies difficult to control. Residual sprays to buildings (see House fly) may be helpful.
Poultry Pests— Mites Red Mite (roosts)	Lindane, 25% wettable powder. DDT, 50% wettable powder. Malathion, 4% dust.	2 to 2½ oz. (4 to 6 level tablespoonfuls) to each 1 gal. water. Spray using 1 lb. to 2½ gal. water. 1 lb. per 50 sq. feet of floor space.	Provide easy to clean roosts and nests with few hiding places. Apply sprays thoroughly to roosts and cracks in surrounding areas. If dusts or roost paints are used, follow labels and company recommendations. Malathion not recommended for use on birds. Sulfur as a dust or a dip or nicotine sulfate as a roost paint also effective.
Mites in Litter (Northern fowl mite)			
Other Mites Scaly-leg			Soak feet in worm soapy water and grease with lard and sulfur mix. Dissolve 1 oz. soap in water. Dip only on warm days.
Depluming Mite	Sulfur dip.	2 oz. undiluted sulfur (325 mesh) in each gallon of water.	
Lice	Sodium fluoride. DDT, 5% dust or sodium fluoride.	1 oz. to 1 gal. water. Apply as "pinch" method or dust.	Apply as dip. Lindane and nicotine sulphate also may be used as roost paint. Follow company recommendations. For more details see USDA Leaflet No. 366.
Sheep Tick and Lice	DDT, 50% wettable powder Chlordane, 50% wettable powder. Lindane, (25% wettable powder) Rotenone dripping powder. (Same as for screw worm below)	1 lb. to 25 gal. water as a dip. Same as for DDT. Same as for Cattle Lice (Beef animals). Follow directions on container.	If no dipping vat is available, increase DDT or chlordane to 2 lbs. to 25 gal. water and apply as spray. Spraying is best done during summer and fall months while wool is short.
"Fleece" worms			

PEST	MATERIAL	DOSAGE	REMARKS
Ticks (other than brown dog tick) (All animals except milk cows)	DDT, 50% wettable powder. Lindane, 25% wettable powder. Toxaphene, 40% wettable powder.	Use 1 lb. DDT to 5 gal. water plus 1 oz. lindane to each 5 gal. water. Same as for Cattle Lice.	Treat about every 3 weeks during periods of heavy tick activity. (May-June and Aug.-Sept.) Follow company recommendations. (Do not use on young animals.)
Brown Dog Tick (Kennel and household pest)	5% DDT or 5% chlordane powder. 5% DDT or 2% chlordane household spray	Dust into cracks and crevices. Spray into cracks and crevices.	Use sparingly as needed. Dips or sprays containing rotenone may be used on animals. Follow labels and company recommendations. Dusts containing 5% DDT, 5% chlordane, 1% lindane or 10% methoxychlor may also be used on older animals. Caution: Use only methoxychlor and rotenone on pups or young animals. Do not apply to animals.
Screwworm (Watch out for localized breaks)	Smear No. 62 or new USDA formula, Smear No. 335. (Treat all wounds during the entire season).	Pack wound if necessary.	Northward movement of infested animals can cause outbreaks. See DDT sprays for suggestions as to spraying buildings to protect animals. Do not dehorn or castrate during summer months or when the pests are present.
Hog Lice	DDT, 50% wettable powder	Same as for control of lice on beef animals.	Apply with sprinkling can or sprayers. Toxaphene or chlordane are also effective.
Mange	Lindane, 25% wettable powder Lindane, 25% wettable powder or Chlordane 50% wettable powder	Same as for control of lice on beef animals. Use 3 oz. (4 to 6 level tablespoonfuls) to each 7 gal. water. 4 oz. to each gal. water.	Applied thoroughly as a single application may be sufficient. (U.S.D.A. Farmers' Bulletin No. 1085).
Fleas (Barns)	DDT, 50% wettable powder or 25% emulsifiable concentrate or chlordane 50% wettable powder.	Mix 1 lb. wettable powder or 1 cupful of emulsifiable concentrate to each 2½ gal. water (See discussion on fly control in buildings as some of materials listed may also be used.)	Thoroughly spray walls and bedding of infested areas. One application usually sufficient. Sprays used to control lice on animals may be used but residual strength will give longer protection.
Fleas (on animals) Dogs Cats	Rotenone or Pyrethrum Methoxychlor DDT Lindane Chlordane Methoxychlor	As a dust use one containing at least 1%. 10% dust. 5% dust. 1% dust. 5% dust 10% dust.	Only the first three materials are safe to use on cats and young dogs. Treatment of areas where animals are kept is usually necessary. Sprays containing any of these materials may also be used. For information on use of sprays on animals with any of these materials follow labels and company recommendations. For additional information see USDA, Leaflet No. 392.

(1) Do not use where milk is handled.

(2) "Dry" baits made with malathion, diazinon and L-13/59 are not recommended for use in homes or where food is handled.

(3) A pyrethrum emulsion concentrate mixture used as a spray in a chute located where animals must walk through it offers some relief from several biting flies. Information will be sent upon request. Also, home made rubbing devices are under study. They have proved effective under some conditions. Proper location is very important.

Recommendations should be followed in order to avoid excess residues of any of the pesticides.